Permit by Rule (PBR) Registration
Technical Review

Company:	Seaboard Foods LLC	**Registration No.:**	179403
Nearest City:	Stratford	**Project No.:**	390138
County:	Sherman	**Project Type:**	Initial
Project Reviewer:	Amanda Andrews	**Regulated Entity No.:**	RN104397385
Unit Name:	Sparky Biogas	**Customer Reference No.:**	CN603155748
PBR No(s).:	106.183, 106.262	**Project Received Date:**	March 12, 2025

Physical Location: on the west side of cr 17 approx 1 mile south of intersection of cr 17 and fm 1573

Project Overview / Process Description

Seaboard Foods LLC (Seaboard) has submitted this application to register emissions related to a boiler and renewable natural gas production under PBRs 106.183 and 106.262. The Seaboard RNG Plant does not have a flare. The plant cleans biogas from swine operations. Biogas generation is seasonal and declines significantly (most of the time completely) during winter months. If the cleaning plant is down, biogas is stored in the covered anaerobic digestor lagoons. There are little to no emissions during down times. There will only be emissions of H2S associated with the tail gas process and fugitives. The tail gas emissions are the emissions from the scrubber.

The facility will anaerobically digest swine manure produced at Seaboard's Sparky Farm to produce biogas. The biogas will subsequently be collected, piped to a central processing unit, scrubbed, and injected into an interstate pipeline network to be used for sale as renewable natural gas (RNG).

The raw biogas generally consists of 60 percent methane (CH4) and 40% carbon dioxide (CO2). The biogas generated in the covered anaerobic digesters, located at the Sparky Farm, will be transported via pipeline to the RNG plant. The collected biogas is processed through an amine scrubber, wherein the CO2 is adsorbed in the amine solution, resulting in processed RNG consisting of roughly 99% CH4. The RNG is subsequently compressed to the required pressure through electric compressors prior to injection in the interstate pipeline.

The rich amine stream from the scrubber is processed through a series of vessels to flash off the CO2 and recover the amine for reuse. The heat required for the biogas treatment process is provided by a natural gas fired boiler.

Gas analysis was performed and H2S was the only additional compound detected.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements	
Registration Fee Reference No.:	**Application fee: 751323 / 582EA000653397**
Is this registration certified?	**No**
Is planned MSS included in the registration?	**No**
Are there affected NSR or Title V authorizations for the project?	**No**
Are there any upstream or downstream affects associated with this registration?	**No**
Are associated upstream/downstream emissions either included in the registration OR within current permitted limits with no changes to underlying air authorizations for the applicable units regarding BACT, health and environmental impacts, or other representations.	**NA**
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	**Yes**
Are total emissions from all sitewide PBR authorized facilities less than the § 106.4(a)(4) limits, OR has the site been subject to public notice requirements? **Meets 106.4 requirements.**	**Yes**
Are there permit limits on using PBRs at the site?	**No**
Is the facility in compliance with all other applicable rules and regulations?	**Yes**

Federal Applicability

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Does this project trigger a PSD or Nonattainment review?	**No**
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	**NA**
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	**Yes**
If Yes, list applicable subparts: NSPS Dc	

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.183 Boilers, Heaters, And Other Combustion Devices

Boilers, heaters, drying or curing ovens, furnaces, or other combustion units, but not including stationary internal combustion engines or turbines are permitted by rule, provided that the following conditions are met.
(1) The only emissions shall be products of combustion of the fuel.
(2) The maximum heat input shall be 40 million British thermal unit (Btu) per hour with the fuel being: **(Actual 16.8 MBtu/hr)**
(2)(A) sweet natural gas;
(3) NA-Distillate fuel oil **will not** be fired as a backup fuel only.

PBR 106.262 Facilities (Emission and Distance Limitations)

(a)(1) The facilities or changes will be located **7300 ft** from any off-site receptor.
(a)(2) Total new or increased emissions authorized by this section are below E lb/hr, as determined using the equation E = L/K, and 5 tpy.
(a)(3) Notification and all required documentation have been submitted.
(a)(4) Any facilities handling chemicals included in §106.262(a)(4) will be **> 600 ft** from the nearest property line and **7300 ft** from any off-site receptor and the cumulative amount of any of the listed chemicals resulting from one or more authorizations under this section will be < 500 pounds on the plant property and all listed chemicals shall be handled only in unheated containers operated in compliance with the United States Department of Transportation regulations (49 Code of Federal Regulations, Parts 171-178).
(a)(5) There will not be any changes or additions of any existing abatement equipment.
(a)(6) Visible emissions will not exceed the 5.0 % opacity limit.
(b) This registration is not for authorization for construction or to change a facility authorized under another section of this chapter or under standard permit.

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:			**March 18, 2025**
Site rating / classification:	**0.00 / High**	Company rating / classification:	**0.00 / High**
Has any action occurred on the basis of the compliance history or rating?			**No**
Did the Regional Office provide site approval and confirm distances?			**NA**

106.262(a)(2) Distance

Distance to nearest off-plant receptor (feet):	7300
K value:	8

106.262(a)(2) Emissions – Table 262

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m^3)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Hydrogen Sulfide	Other		1.1	1.38E-01	6.02E-01	2.00E-02	1.00E-01	Yes

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Registration No. 179403 Project No. 390138

Emission Summary

EPN / Emission Source	VOC		NOx		CO		$PM_{2.5}$ / PM_{10}		H_2S		SO_2		HAPs	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
EUO1 / Reboiler	0.09	0.40	1.65	7.21	1.38	6.06	0.13	0.55			0.01	0.04	0.03	0.14
FUG01 / Fugitives									<0.01	0.01				
Eu02 / Treated Tail Gas									0.02	0.10				
TOTAL EMISSIONS (TPY):		**0.40**		**7.21**		**6.06**		**0.55**		**0.11**		**0.04**		**0.14**
MAXIMUM OPERATING SCHEDULE:			**Hours/Day**		24	**Days/Week**		7	**Weeks/Year**		52	**Hours/Year**		8,760

Amanda Andrews April 15, 2025
Ms. Amanda Andrews Date
Permit Reviewer
Rule Registration Section

Michael Partee April 16, 2025
Michael Partee, Manager Date
Rule Registrations Section
Air Permits Division
Section Manager